

CLAIMS

Sub 1. An atomizer comprising a housing, said housing having three inlets, three channels each including a nozzle in communication respectively with said inlets, and said three inlets comprising a fluid-receiving first inlet, a fluid-receiving second inlet and a liquid-receiving third inlet.

2. An atomizer according to claim 1 wherein said first fluid-receiving inlet comprises an air-receiving inlet.

3. An atomizer according to claim 1 wherein said first fluid-receiving inlet comprises a gas-receiving inlet.

4. An atomizer according to claim 1 wherein said first fluid-receiving inlet comprises a steam-receiving inlet.

5. An atomizer according to claim 1 wherein said second fluid-receiving inlet comprises a water-receiving inlet.

6. An atomizer according to claim 1 wherein said second fluid-receiving inlet comprises a coolant-receiving inlet.

7. An atomizer according to claim 1 wherein said second fluid-receiving inlet comprises a lubricant-receiving inlet.

8. An atomizer according to claim 1 wherein said second fluid-receiving inlet comprises a gas-receiving inlet.

9. An atomizer according to claim 1 wherein said fluid-receiving inlet comprises a steam-receiving inlet.

10. An atomizer according to claim 1 wherein said second fluid receiving inlet comprises an air-receiving inlet.

11. An atomizer according to claim 1 wherein an angular swirling member is coaxially disposed in said housing with respect to said second nozzle.

12. An atomizer according to claim 11 wherein the inner diameter of said swirling member is equal to the inner diameter of said second nozzle and wherein the associated end of said second nozzle is disposed in abutting relationship with said swirling member.

13. An atomizer comprising a housing, said housing having two inlets, inner and outer channels including two nozzles in communication respectively with said inlets, and a thermal barrier disposed between said inner channel and said housing.

14. An atomizer according to claim 1 wherein a nozzle is in communication with at least one of said channels.

15. An atomizer according to claim 1 wherein said fluid issues from said nozzle at a pressure less than 100 bar.

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16. An atomizer according to claim 1 wherein said channels are generally concentric and wherein the inner one of said channels is coated in part with nonstick material.

17. An atomizer according to claim 16 wherein the edge of said inner
5 channel nozzle is sharp.

18. An atomizer according to claim 1 wherein one of said channels is an inner channel and another of said channels is a middle channel and wherein said inner and middle channels are separated by heat resistant material.

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